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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/726,574	12/01/2000	Tsuneo Sakamoto	1921-0129P	1978

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EXAMINER
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CHERRY, STEPHEN J

ART UNIT	PAPER NUMBER
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2863

DATE MAILED: 11/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	Application No. 09/726,574	Applicant(s) SAKAMOTO ET AL.	
	Examiner Stephen J. Cherry	Art Unit 2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 August 2002.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 4-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
     If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Objections***

Claim 4 is objected to because of the following informalities:

1. The phrase, "the oldest operating state", lacks antecedent basis in the claim.

Although, data "on operating states" is stored in a data structure, operating states are not described as stored in the described structure, thus could not be dropped. The examiner suggests substituting "an oldest operating state data".

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 describes:

4. A method of monitoring an operation of a thermal device, comprising:  
detecting data on operating states of said thermal device;  
storing said detected data at specified time intervals along with time of  
detection as operating state data, wherein a first number of operating state  
data are stored in sequence so that when a new operating state data is  
added, the oldest operating state is dropped;  
storing detected data when a failure occurs in said thermal device along  
with the time of failure;  
storing operating state data for a second number of time intervals less  
than said first number of time intervals after the failure; and  
outputting said stored data.

This claim contains limitations that render it indefinite, including:

1. The phrase, "outputting said stored data", lacks antecedent basis in the claim. It is not clear which of the three described data structures is intended to be outputted. These data structures include the first number of operating state data, the detected data when a failure occurs, or a second number of time intervals.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 4-8 are rejected under 35 U.S.C. 102(b) as being anticipated by

Summers et al.

Claim 4 describes, as anticipated by Summers:

4. A method of monitoring an operation of a thermal device ('456, col. 7, line 18), comprising:

detecting data on operating states of said thermal device ('456, col. 7, line 20);

storing said detected data at specified time intervals ('456, col. 8, lines 42-45) along with time of detection as operating state data ('456, col. 8, lines 27-31), wherein a first number of operating state data are stored in sequence so that when a new operating state data is added, the oldest operating state is dropped ('456, col. 11, lines 46-49);

storing detected data when a failure occurs in said thermal device along with the time of failure ('456, col. 12, lines 17-22);

storing operating state data for a second number of time intervals less than said first number of time intervals after the failure ('456, col. 12, lines 17-28); and

outputting said stored data ('456, col. 7, line 54 to col. 8, line 4).

Claim 5 describes, as anticipated by Summers:

5. The method according to claim 4, further comprising storing operating state data at a starting point at each control step. ('456, col. 14, lines 3-30, describing triggering log entries as a result of changes of analog and digital input data. Changes of status of sensed variables is interpreted as indicative of the start of a control step.)

Claim 6 describes, as anticipated by Summers:

6. An apparatus for monitoring an operation of a thermal device, comprising:  
detectors for detecting operating states of said thermal device ('456, 10);  
a processor for receiving outputs from said detectors ('456, 16);  
storage device connected to said processor for receiving data based on said outputs from said detectors along with a time of detecting as operating state data at specified time intervals, a first number of time intervals being stored so that when a new operating state data is added, the oldest operating state data is dropped ('456, 17, 18, 19 and col. 11, lines 46-49) ;  
said storage device also storing data when a failure occurs along with the time of failure, wherein operating state data continues to be stored for a second number of time intervals smaller than said first number of time intervals after the failure ('456, col. 12, lines 17-22); and

an output device used for outputting data from said storage device ('456, 21-24 and 26).

Claim 7 describes, as anticipated by Summers:

7. The apparatus according to claim 6, further comprising a monitoring device for receiving data from said output device ('456, 21-24).

Claim 8 describes, as anticipated by Summers:

8. The apparatus according to claim 6, wherein said storage device also stores operating state data at a starting point of each control step. ('456, col. 14, lines 3-30, describing triggering log entries as a result of changes of analog and digital input data. Changes of status of sensed variables is interpreted as indicative of the start of a control step.)

### ***Response to Arguments***

Applicant's arguments filed 8-26-02 regarding newly added claims 4-8 with respect to the Summers reference have been fully considered but they are not persuasive. Applicant states that Summers does not teach "storage of a set number of data points with the data being removed as it is added and with a second set of data points being added after a failure". These features are explicitly disclosed. Summers describes, "The logging program continues to overwrite the oldest line, thus keeping a full page of log available for instant printing on demand" ('456, col. 11, lines 46-49), thus describing removing data by overwriting. Additionally, Summers describes a memory

allocation with a large amount of data for a "formal log", and smaller amounts of data sampled at high rates for "turbine-trip" analysis.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Cherry whose telephone number is (703) 305-0425. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (703) 308-3126. The fax phone numbers



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for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0719.

SJC  
November 14, 2002



John Barlow  
Supervisory Patent Examiner  
Technology Center 2800